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P A P E R S

IN

MANUFACTURES.

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## MANUFACTURES.

A Bounty of TEN GUINEAS was this Session voted to Mr. THOMAS BARKER, of St. Mary-le-bone, for an improved Mode of Warping and Preparing WEBS for Weavers.

The following Communication was received from him; a Plate and Description are added; and Models of the Apparatus are reserved in the Society's Repository.

SIR,

I HUMBLY beg leave to lay before the Society of Arts, &c. an improved method, which I have invented, for warping of Chains or Webs, for Weavers. It is a great saving to the master, by laying the work level, and free from slack threads, and saves, the

labouring weaver one hour in a day. The weavers who have had experience of its great utility for more than twelve months, are ready to testify its advantages. My hearty wish is to make it known generally; and I have no objection to go to any manufacturing town, to teach it perfectly to my brother weavers.

I am, SIR,

Your humble Servant,

THOMAS BARKER.

No. 3, *Grafton-court, St. Mary-le-bone,*  
*April 18, 1800.*

To Mr. CHARLES TAYLOR.

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Certificates from Benjamin Thrower, Conly Cassidy, Dennis Brien, and John Henderson, weavers, stated, that they had used, for above twelve months, the Warps prepared by Thomas Barker; that they could do the weaving five *per cent*

*cent* cheaper when thus warped than in the common way; that it was more free from slack threads, made firmer cloth, and precluded the necessity of cutting the warps at the ends, as has been usually done; and that it saved a considerable portion of yarn to the master.

REFERENCE to the Engraving of THOMAS BARKER's *Method of preparing Webs for the Loom*,—Plate V. Fig. 3, 4, 5.

The general object of this method is to lay the yarn or threads evenly upon the warping mill; and when the warp is transferred from thence to the yarn-beam of the loom, to place the threads regularly upon the beam, the whole breadth that the cloth is intended to be when made, so that there may be a proper and equal tension of the threads betwixt the cloth and the yarn-beam. In striped patterns also the figure is thus more

Y 3 distinct.

distinct, and better managed than it is commonly done.

*Fig. 3, Plate V,* exhibits the upper and lower parts of the Warping Mill, detached from each other, in order to show them of a better size.

A, is the top spindle of the mill, running in a collar, within the upper cross piece B.

C. The lower spindle or pivot, upon which the mill turns round in a pivot hole, in the lower cross piece D.

E. A cord wound round the spindle A, passing from thence over a pully F, then going under the pully G, and over the pullies H H; from thence descending to the pully I, attached to the box K; then ascending to the pully L, and lastly ending at the catch M. The intention of this cord is to give a regular motion to the solid box K, so that the box may slide easily up and down, the whole length

length of the upright piece N, and distribute the threads O evenly upon the mill, as they are drawn from the bobbins. These threads pass, a few together, betwixt each of the small running rollers P, under an iron rod Q, which confines them from rising. After passing the rollers, all the threads approach each other, and are wound round the mill as it turns upon its pivot.

R R R. Three pegs, fixed at the lower part of the mill, upon an horizontal piece of wood, lying betwixt two of the upright staves of the mill. The use of these pegs is to keep small portions of the threads apart, so as to be placed more easily afterwards in the conducting frame. The manner in which these threads are crossed, and returned upon the mill, is shown at R R R, the pegs

Y 4 being

being engraved of a larger size than the other parts, to explain their use more clearly.

S. A small toothed wheel, and catch upon the box, which regulate the distance at which the threads should be laid upon the mill.

M. Another small-toothed wheel and catch, fixed on the upper cross piece or arm B, to tighten the cord which moves the box.

Fig. 4, V. Shows the lower part of the conducting frame, or separator, which has some resemblance to a very coarse comb, with the teeth uppermost. When the warp is removed from the mill to the loom, the small portion of the thread separated by the pegs R R R, are placed within each of these teeth; the cap, or upper part of the instrument N, is then put over the teeth, to prevent the threads coming out of it: the whole

whole warp is then drawn through it gradually, as it is wound upon the yarn-beam, and laid very level thereon the breath that the cloth is intended to be made; rather contracting the breadth, by placing the conductor obliquely, as a greater quantity is wound upon the beam.